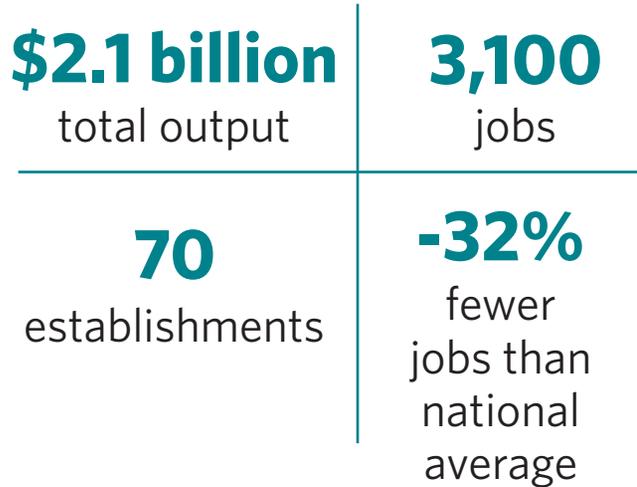


Upstream Chemicals

This cluster manufactures basic organic and inorganic chemicals or gases, in particular separate elements that could be used as inputs for more complex downstream chemical products. The technical report, *Metropolitan Chicago's traded industry clusters*, offers extensive data on the characteristics and performance of the Chicago region's core industrial assets since 2001, available for download at <https://cmap.is/Traded-Clusters>.

In the Chicago region in 2017, this cluster consisted of



Source: CMAP analysis of Economic Modeling Specialists International data (Emsi 2018.4).

Workers in this cluster tend to be **more** racially diverse than the regional labor force.

45% non-white

31% female

37% over age 50

2%
commute
by transit

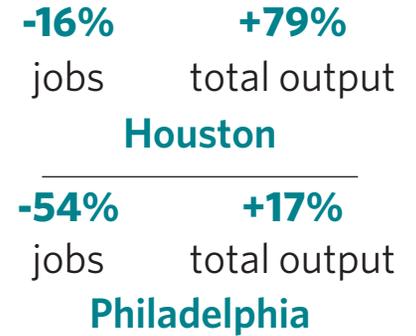


Source: CMAP analysis of Integrated Public Use Microdata Series, 2017 American Community Survey data.

Largest occupations

Chemical Equipment Operators
Blending Machine Operators
Chemical System Operators
Filling Machine Operators
Chemists

In recent years, the cluster's competitive position **strengthened** as it remained **unspecialized** in the national context.



Source: CMAP analysis of Economic Modeling Specialists International data (Emsi 2018.4).
Note: Job change is from 2001-17, and total output change is from 2007-17.

Middle-skill workers have **greater** opportunity than the regional average.



44%

of workers have an associate's degree or higher



52%

of jobs typically require at least 2 months of on-the-job training

Source: CMAP analysis of Integrated Public Use Microdata Series, 2017 American Community Survey and Economic Modeling Specialists International data (Emsi 2018.4).

In 2016, this cluster generated approximately

\$10.2 billion

in freight shipments that originate, terminate, or circulate regionally.

Freight mode share, by value



Freight trade geography, by value



11%

Chicago region



20%

Midwest



47%

Rest of U.S.



22%

Global

Source: CMAP analysis of Freight Analysis Framework data (FAF 4.4.1).
Note: Data includes only the Illinois portion of the U.S. Census Bureau combined statistical area. Freight data is not provided for service clusters.